ABSTRACT

In the field of Acousto-Optic processors, it is desirable to sample and multiplex a large quantity of time varying data generated by a photodiode array. However, current multiplexers cannot sample at a high enough rate in order to process all of the data generated in real time, resulting in a reduced sampling bandwidth and therefore a loss of information. A data filtering apparatus and method of filtering a plurality of data signals overcomes this problem by providing a channel selection logic unit which instructs a multiplexer to only sample data generated which is above a predetermined threshold value, thereby omitting to sample data which is of little information value.